

Patent Abstracts of Japan

PUBLICATION NUMBER : 05169686  
PUBLICATION DATE : 09-07-93

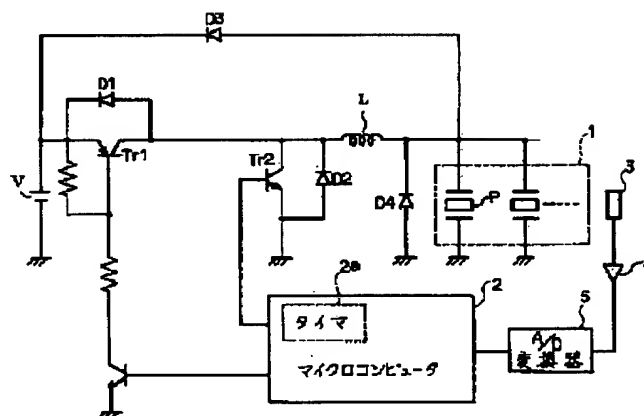
APPLICATION DATE : 13-05-92  
APPLICATION NUMBER : 04148319

APPLICANT : BROTHER IND LTD;

INVENTOR : SUZUKI MASASHI;

INT.CL. : B41J 2/30

TITLE : PIEZOELECTRIC ELEMENT DRIVE CIRCUIT



ABSTRACT : PURPOSE: To obtain a drive circuit which can constantly drive a piezoelectric element with an optimum pulse width even if the electrostatic capacity of the piezoelectric element is changed depending on the temperature thereof.

CONSTITUTION: A temperature sensor 3 is kept at approximately the same temperature as a laminated piezoelectric element 1 by a resin of a high thermal conductivity. In a ROM provided in a controller 2 forming a control circuit, an optimum set ON time  $T_{on}$  corresponding to the output of the temperature sensor 3 is stored. This value is corresponding to  $\pi\sqrt{LC}/2$ . At the time of printing, a pulse width is determined by the set ON time  $T_{on}$  in accordance with the value outputted from the temperature sensor 3 at that time. Therefore, an optimum drive pulse width can be constantly obtained independently of the temperature of the laminated piezoelectric element 1 at that time. In this case, C is a piezoelectric element electrostatic capacity, and L is an inductance of a coil.

COPYRIGHT: (C)1993,JPO&Japio